ARIZONA DEPT OF ADMINISTRATION - ASET

Arizona FirstNet

Response to: NTIA / FirstNet Responder Network Authority Proposed Interpretations of Parts of the Middle Class Tax Relief and Job Creation Act of 2012

10/27/2014

Contents

Summary

The Arizona FirstNet Program and Arizona Public Safety Stakeholders agree that clarifying the definition of significant terms used in the enabling legislation is a worthy exercise. However, in many cases the analysis has read more into the meaning than intended. The resulting analysis has overshadowed the importance of first responders, public safety and their requirements. We believe that public safety would be best served if FirstNet would focus on business models, user policies, operational policies, services, network management and support.

Our key points of emphasis focus on the following three sections of the Public Notice:

Elements of the Network
The essence of the Core needs to be defined from a purely network orientation without including administrative functions like billing. Further, the distinction between Core and RAN needs to be clearly defined before discussions about who is responsible for or has access/control over what portions of the network.

Public Safety Entities
Operational and financial categorization of users should be distinct and unique. The blending of these two functional groupings using the same naming convention will lead to confusion and hinder decision making on policy, procedures and solutions.

Further, the emphasis placed on opening up the user base to virtually anyone gives the impression that some level of financial analysis has been performed by FirstNet. If this is the case, it would be beneficial for the States to have visibility of the results so they are aware of the hurdles and projected costs and have the financial context for FirstNet priorities and design decisions.

Rural
A singular definition of "rural" based solely on population will not adequately determine coverage requirements and/or build out milestones due to the many factors which mitigate coverage requirements. FirstNet should establish build out milestones based on the unique coverage requirements of each State through the state consultation process.

Our in-line comments can be found in the following extract of the *Public Notice on Proposed Interpretations of Parts of the Middle Class Tax Relief and Job Creation Act of 2012*. Our comments are in blue text in response to the "we seek comment" prompts in red.

A. FirstNet Network

Elements of the Network

Section 6202(a) of the Act charges FirstNet with the duty to "ensure the establishment of a nationwide, interoperable public safety broadband network . . . based on a single, national network architecture . . . ."8

- Section 6202(b) defines the architecture of this network as initially consisting of a "core network" and a "radio access network," with specific definitions discussed below.9
- In addition, Section 6206(b) requires FirstNet to take all actions necessary to ensure the building, deployment, and operation of the network, including issuing requests for proposals for the purposes of building, operating, and maintaining the network.1
    - Thus, overall, FirstNet is responsible for ensuring the core network and radio access network is built, deployed, and operated.

Under the state and local implementation provisions of Section 6302, however, a State may, subject to the application process described in 6302(e), choose to conduct its own deployment of a radio access network in such State, including issuing requests for proposals for the construction, maintenance, and operation of the radio access network within the State.11

- Section 6302 does not provide for State deployment of a core network separate from the core network that FirstNet is charged with deploying under Sections 6202 and 6206. Section 6302(f) requires States that choose to build their own radio access network to pay any user fees associated with such State's use of "the core network."12
- The only user fees expressly defined under the Act are those FirstNet is authorized to assess and collect under Section 6208,
- and as mentioned above, the Act does not require any party other than FirstNet to build and operate a core network.
- In addition to and consistent with these statutory provisions, Sections 4.1.1 and 4.1.2 of the Interoperability Board Report13 indicate that the FirstNet core network is the core network connected to and controlling opt-out State radio access networks.

Thus, we **preliminarily conclude** that opt-out State radio access networks must use FirstNet's core network to provide services to public safety entities.

This **conclusion** is also supported by the overall interoperability goal of the Act, which would, from a technical and operational perspective, be more difficult to achieve if States deployed their own, separate core networks to serve public safety entities.

We seek comments on this preliminary conclusion.

[Please see comments for this section below]

Core Network

Section 6202(b) of the Act *defines* the FirstNet "core network" as providing the connectivity between the radio access network and the public Internet or PSTN.[15]

- Section 6202(b) further describes the *parts* of the "core network" to include the
    - National and regional data centers and,
    - Other elements and functions that may be distributed geographically and,
    - Provides connectivity between:
        I. the radio access network and,
        II. the public Internet or public switched network or both

In accordance with this provision, relevant sections of the Interoperability Board Report, and commercial standards, we define the core network as including without limitation:

- The standard Evolved Packet Core elements under the 3rd Generation Partnership Project ("3GPP") standards, including:
    - The Serving and Packet Data Network Gateways
    - Mobility Management Entity
    - The Policy and Charging Rules Function
- Device Services
- Location Services
- Billing functions and
- All other network elements and functions other than the radio access network

Radio Access Network

Section 6202(b) defines the "radio access network" as consisting of:

- All cell site equipment
- Antennas
- Backhaul Equipment required to enable wireless communications with devices using the public safety broadband spectrum

We propose to define the radio access network in accordance with this **provision**, commercial standards and the relevant sections of the Interoperability Board Report, as consisting of the standard E-UTRAN elements (including the eNodeB).

We seek comments on our **preliminary conclusions** regarding the definitions of core network and radio access network above, including the delineation of elements between them and any possible ramifications that would result based on this construct with respect to the achievement of FirstNet's mission, particularly if a State elects to opt-out and build their own radio access network.

The State of Arizona does not support the preliminary conclusion that opt-out State radio access networks must use FirstNet's core network to provide services to public safety entities (PSE) under current definitions. Our concerns are as follows;

- Section 6202(b) describes the core network as providing connectivity between the radio access network and the public Internet or public switched network or both. Excluded from this definition is direct connectivity between the core network and the radio access network. Arizona believes this network element - direct transport connectivity between the core network and the radio access network - should be explicitly identified and included either in the definition of core network or radio access network. To assure uniform functionality and cost equivalency, it would be best to require the FirstNet supplied backbone (which is part of the Core) to include connectivity to at least one Tier 1 point of presence within each state/territory, where one exists. Additionally, the definition of both core network and radio access network should include distinct and specific points of demarcation for maintenance responsibility, service level agreements, operational control and ownership under an opt-out scenario. For example, under the 3GPP standard, the eNodeB (RAN component) connects to the Serving Gateway which is part of the evolved packet core (EPC). The question is who owns the connection between the eNodeB and the Serving Gateway? Is the connection a component of the RAN or a component of the EPC? The answer to the question would define a demarcation point between the RAN and the EPC.
- The section includes other elements including Evolved Packet Core "3GPP" standards, device services, location services, billing and all other network elements and functions apart from the radio access network in the definition of core network. At present, these elements are too broadly defined. In particular, there are likely to be distinct differences in the nature of billing function for core network services and for radio access network services under an opt-out scenario. Under the current broad definition, a state operating its own radio access network would be required to purchase billing services from FirstNet for its own radio access network services. Billing is an administrative function, not a network function and should be excluded from the definition of core network and addressed elsewhere.
- The clause "all other network elements and functions other than the radio access network" is too broad, particularly given the proposed definition of radio access network. Specifically, the definition of radio access network includes backhaul *equipment*. This terminology seems to exclude backhaul *service* or *connectivity*. This exclusion combined with the clause "all other network elements and functions other than radio access network", could define backhaul *service* as part of the core network. Under an opt-out condition, separating backhaul service, particularly cell site-to-local transport network would be problematic from an operational, maintenance and ownership demarcation perspective.

- Other than the Section's language defining the core network as including "national and regional data centers and other elements and functions that may be distributed geographically", neither the definition of core network nor radio access network seem to contemplate a network architecture that includes a local or state level transport network aggregating local cell site traffic to a point of presence. Thus, the definition implies a network architecture requiring connectivity from individual cell sites directly to the national core transport network would lead to a very inefficient and expensive architecture. Alternatively, an interpretation considering all definitions in this Section suggests that the demarcation between the core network and a radio access network is the cell site side of the backhaul equipment. Under this interpretation, an opt-out state has limited ability to efficiently manage a state level network.
- Definitions of either core network or radio access network exclude deployable network elements such as cell-on-wheels or system-of-wheels, unless the language "…other elements and functions that may be distributed geographically" is intended to address these elements. This should be clarified.
- The technical solution must provide seamless interoperability for public safety agency users.
- The technical solution must also allow states to each determine how to manage Local Control of the network as well as allowing for Quality of Service adjustments. This has been outlined in the NPSTC Statement of Requirements[1].

Public Safety Entities, Secondary Users, and Other Users

The Act clearly indicates that the NPSBN is intended primarily for use by public safety entities.

Section 6101(a) of the Act generally directs the Federal Communications Commission (the "Commission") to reallocate the 700 MHz D block spectrum "for use *by public safety entities* in accordance with the provisions of this Act."[18]

- Section 6206(b)(2)(B)(ii) further requires that FirstNet ensure that equipment used on the NPSBN is "capable of being used by any public safety entity."[19]
- However, the Act also permits FirstNet to charge user fees to, and thus by direct implication serve, non-public safety entities under certain conditions.[20]

We thus first propose to define below the legal scope of *all* potential *users* of the NPSBN, including both public safety entities and non-public safety users. In a later section, we will discuss the limitations imposed by the Act on the types of *services* FirstNet may offer to such users.

The overall direction of the interpretation of the various types of Users (Public Safety Entities, Secondary Users, and Other Users) is to open up the access to the Network to as many fee-paying users as possible which is a reasonable interpretation of the law.

[1] http://www.npstc.org/download.jsp?tableId=37&column=217&id=2609&file=BBWG_SoR_Launch_12112012.pdf

However, the conclusions drawn distort the traditional interpretation of Secondary Users. The term Secondary Users has been used by the FirstNet Board, FirstNet Outreach, State Education and Outreach efforts and Public Safety in general to include agencies which perform support activities to Public Safety entities (Departments of Transportation, Utilities, etc.).

By including both First Responders and support agencies in the Public Safety Entities (PSE) category we would run the risk of causing confusion and not being able to distinguish between PSE and support personnel when the time comes to restrict access to the network in case of overload.

Instead of classifying the various Fee Types by tying them to the operational User Types, Arizona recommends a separate categorization pertaining specifically to the types of payees. The Fees should be based what part of the FirstNet network is used by each User, not by the type of User. The type of user should be geared toward priority and ability to use the network.

OPERATIONAL USERS
Public Safety Entities
Secondary Users
Other Users

FEE TYPES
Core and RAN Fee base
Core Fee base (opt-out)
Other Fee base (PPP, Spectrum, Infrastructure sharing, Infrastructure leasing, etc.)

Overall, the over-interpretation of the legislation to form conclusions which try to create more formal direction than was originally intended is counterproductive. It would be much more beneficial for FirstNet to propose and gain consensus from States and Public Safety on business models, user policies, operational policies, services, and network management and support.

We note that FirstNet may, as a policy matter, decide to narrow the scope of users it actually serves relative to those it can legally serve if it determines it is reasonable and appropriate to do so in support of its mission. We also recognize that, even among the multiple user groups who are allowed to use the NPSBN, separate priority and preemption parameters will be established.

- In the future and following appropriate consultations, we will fully address the priority and preemptive use of and access to the NPSBN among the various user groups.
- Prior to that, we address below the specific types of users that FirstNet is statutorily authorized to serve on the NPSBN.

In determining who is legally authorized to use the NPSBN it is helpful to first examine whether the Act expressly precludes any specific user group.

We **preliminarily conclude** that the Act does not contain a list of expressly precluded users. Section 6212, discussed more fully in the next section of this *Notice*, comes closest to such preclusion by limiting the types of services that can be provided directly to "consumers."[21]

Agreed; with a caution that the original intention of the legislation was to create a broadband network with priority use by public safety.

Section 6206(c)(2)(A)(vi) otherwise supports our general interpretation by requiring FirstNet to consult with regional, State, tribal, and local jurisdictions with regard to expenditures required to carry out policies on the "selection of entities seeking access to or use of" the network.[22]

We **preliminarily conclude** that the Act grants FirstNet discretion, within the bounds of the provisions discussed below, to consider a broad range of users consistent with FirstNet's mission.

The lynch pin that holds the concept of allowing a vast number of users on the network is priority and preemption. If priority and preemption does not function properly then public safety will not have the bandwidth needed during daily operations and incidents.

FirstNet should consider limiting the use of the network to only First Responders (Police, Fire and EMS) during the launch of the network in each build-out area. This would include all levels of government, local, county, tribal, state and federal. After the priority and preemption; load; and capacity on the network has been properly tested, FirstNet could then allow secondary and other users to access the network.

Allowing all of the users stated in this and subsequent sections to access the network at the launch would lead to unforeseen access and capacity issues. It would also be immensely difficult to revoke access to the network once they are on. One option to resolve this issue would be to use an iterative process allowing network access in steps. First Responders would be allowed access first. Then other users could be granted access based on capacity; load; and priority and preemption testing.

To reach this conclusion, we first look to the sections of the Act involving the imposition of fees to provide greater clarity about the users authorized to use the NPSBN.

- Section 6208(a)(1) permits FirstNet to charge "user or subscription" fees to "each entity, *including* any public safety entity or secondary user, that seeks access to or use of the [NPSBN]."[23]
- We note that this **provision** uses the word "including," rather than, for example, a limiting word such as "consisting" as used in Section 6202(b), which identifies the closed set of specific network components making up the NPSBN.[24]

Thus, although this provision explicitly identifies public safety entities and secondary users as entities for which FirstNet may charge user or subscription fees, it does appear to leave open the possibility of a group of other, unspecified entities as NPSBN users to which FirstNet may charge a network user fee, and thus presumably provide service.

- For example, Section 6302(f) further authorizes FirstNet to charge opt-out States "user fees" associated with use of FirstNet's core network.[25]

As discussed below, we **preliminarily conclude** that such opt-out States could constitute either public safety entities or fall within this other, unspecified category of entities within Section 6208(a)(1) in their capacity as an entity seeking access to and use of the FirstNet core network.

Similarly, Section 6208(a)(3) authorizes us to collect a fee from any entity that seeks access to or use of any network equipment or infrastructure.26 Such entities could also possibly fall under the other category of unspecified users or, like opt-out States, be considered users of the NPSBN by virtue of our direct authority to charge a fee for access to or use of any network equipment or infrastructure.

We seek comments on the preliminary conclusions above.

We agree that any entity that seeks access to the network equipment or infrastructure should be assessed a fee.

We agree in principle, however, we disagree with the characterization of opt-out States as belonging to the 'other category of unspecified users' since their users will run the full range from First Responder Public Safety Entities through Secondary Users to all types of Other Users.

Public Safety Entity

A *public safety entity* is defined in Section 6001(26) of the Act as an "entity that provides public safety services."27

- We note here that the Act does not include any express language requiring a minimum amount or frequency of providing such services, but merely required that an entity provide such services, even if not full time.

As is more fully discussed below, we **preliminarily conclude** that an entity may offer other services in addition to a non-*de minimis* amount of public safety services and still qualify as a public safety entity.

Public safety services, in turn, are defined in the Act as having:

- "the meaning given the term in section 337(f) of the Communications Act of 1934 [the "Communications Act"] (47 U.S.C. 337(f));
- *and* (B) includes services provided by emergency response providers, as that term is defined in section 2 of the Homeland Security Act of 2002 [the "HSA"] (6 U.S.C. 101)."28

Accordingly, we **preliminarily conclude** that "public safety services" are services that are either those satisfying Section 337(f) of the Communications Act or services satisfying Section 2 of the HSA.

We believe an alternative interpretation requiring compliance with both definitions, rather than either definition, would not be an appropriate treatment of the word "includes" in the provision and would unduly constrain the pool of potential public safety entities that could use the network to a group smaller than either the Communications Act or the HSA definition would allow.

We seek comment on this preliminary conclusion

Agreed; satisfying one of the definitions is sufficient and provides the flexibility needed to provide a definition that can be used nationally.

a**. 47 U.S.C. 337(f):**

The Communications Act defines "public safety services" to mean services:

- **A.** the sole or principal purpose of which is to protect the safety of life, health or property;
- **B.** that are provided by
  - **I.** (i) State or local government entities, or
  - **II.** (ii) by non-governmental organizations that are authorized by a governmental entity whose primary mission is the provision of such services; and
- **C.** that are not made commercially available to the public by the provider.29

This prong of the definition of public safety services defines these services by referencing both the purpose of the services and those entities that provide them.

- However, the Communications Act's definition of public safety services has historically been applied not in the context of determining entities that provide services, but rather to restrict or define the particular services that can be provided over limited-use spectrum.
- In contrast, the Act purports to define an entity, rather than a service, as one that performs certain services.
- Accordingly, the definition of public safety entity
  - **1)** Under the Act will turn on the services being provided by the entity,
  - **2)** with the definition of such services under the Communications Act turning on both
    - the nature of the services
    - the entity providing them
- In the case of a service in general, an entity may perform different kinds of services, only *some* of which may qualify as public safety services.
- In the case of a public safety entity as defined in the *Act*, however, there is no "primary mission" restriction on the entity as there is in the *Communications Act* definition of public safety services.
- Nevertheless, when we consider just the Communications Act prong of the definition of public safety services in the Act, a public safety entity under the Act may be limited, by

definition, to the entities referenced in the Communications Act definition of public safety services.

To aid our interpretation of the Act, we have examined how the Commission has interpreted this Communications Act definition. On July 21, 2011, the Commission issued an Order interpreting Section 337(f) in connection with permissible uses of the 763–768 MHz and 793–798 MHz public safety broadband spectrum, which is now a portion of the spectrum licensed to FirstNet.[30] This Order provided "guidance on the scope of permissible operations under Section 337 of the Communications Act as undertaken by state, local, and other governmental entities."[31]

- The **Commission** provided several specific examples of potential permissible uses by personnel of governmental entities that are informative for purposes of defining "public safety entity" under the Act. These include:
    1) Entities supporting airport operations when "ensuring the routine safety of airline passengers, crews, and airport personnel and property in a complex air transportation environment."32
    2) Transportation departments in the design and maintenance of roadways, the installation and maintenance of traffic signals and signs, and other activities that affect the safety of motorists and passengers.
    3) City planning departments to ensure compliance with building and zoning codes intended to protect the safety of life and property.34
    4) Entities protecting the safety of animals, homes, and city infrastructure, particularly in crisis situations.35

We give deference to the conclusions reached by the Commission in its interpretation of Section 337(f)(1) to inform our interpretation of "public safety services" as defined in the Act.

Thus, we **preliminarily conclude** that entities providing the services described in the Commission's Order, above, would qualify as public safety entities for purposes of the Act.

We seek comment on this preliminary conclusion.

These examples go far beyond traditional public safety users and open the network far beyond the scope of police, fire and EMS.

Departments that fall outside a local, state, tribal and/or federal "primary mission" agency, such as "city planning" should be given permissions to use the network by those identified as "primary mission" as defined in the section below.

Adding these functions in as a blanket service opens up "public safety entities" too wide and defeats the purpose of creating a "public safety" broadband network.

We also seek comment on other entities and services that should so qualify.

In many cases emergency plans often include entities that would not normally be considered "Public Safety". Situational need often includes other entities or NGOs to provide a specific capability. City Buses or School Buses are often used as a transport mechanism during mass evacuations or cooling areas in a large power outage. In these specific situations, they would be considered Public Safety support while on a day to day basis they would not qualify.

If entities play a role in an accepted emergency response plan or are operating under sponsorship from an accepted Public Safety entity, how they are qualified the majority of time that they are not in the public safety role is the question.

Arizona law has identified tow companies in some circumstances as first responders. The highway patrol relies on them to remove hazardous vehicles from the roadway expeditiously to avoid additional critical incidents. Others within local Arizona jurisdictions have shared that their tow companies should not be primary users of the network. Many of these decisions should fall on governance within each region or state to determine the usage of the network.

Section 337(f)(1)(B)(ii) also provides that public safety services can be performed "by non-governmental organizations that are authorized by a governmental entity whose primary mission is the provision of such services."36

In its Order, the Commission did not address services performed by non-governmental organizations.

We **preliminarily conclude** that the Commission's description with respect to services provided by governmental entities should equally apply to services provided by non-governmental entities as contemplated by Section 337(f)(1).

The definition listed above "by non-governmental organizations that are authorized by a governmental entity whose primary mission is the provision of such services" should be kept to control who is a primary user of the network. Those defined under "primary mission" should have the ability to selectively authorize network access for NGO users to maintain network integrity. This decision will vary from location to location and should not be open-ended.

We thus seek comments on the types of non-governmental organizations that, were they to provide the services the Commission addressed with respect to governmental entities, would qualify under Section 337(f) of the Communications Act as providing public safety services.

Private Ambulance companies, private fire departments (Rural Metro/Southwest Ambulance, HHC), and hospitals.

We also seek comments on other non-governmental organizations and services that should so qualify.

Red Cross, Salvation Army, Utility Companies (ex: SRP, APS, Southwest Gas, Tucson Power & Electric, Central Arizona Project), Mines, Private prisons, Hospitals, Telco: (Century Link, Cox, Frontier, etc); Civil Air Patrol, Search and Rescue – if not affiliated with an agency, CERT teams.

In order to understand which non-governmental entities under Section 337 would qualify as public safety entities, one must first identify the types of governmental entities whose primary mission is the provision of public safety services, as these entities can, in turn, authorize non-governmental organizations to provide public safety services under Section 337(f)(1)(b)(ii).

- Section 337(f) of the Communications Act refers to such entities as "a governmental entity whose primary mission is the provision of [public safety] services."37

We seek comments on which governmental entities may authorize non-governmental organizations to provide public safety services based on this "primary mission" limitation.

For example, **we seek comments** on whether state utility commissions, health departments, and police and fire agencies qualify as such entities.

We also seek comments on what other governmental entities would so qualify.

"Primary Mission" authorized to allow NGO's onto the network

- local, state, county, tribal or federal:
  - Police Department
  - Fire Department
  - Emergency Medical Services
  - Emergency Managers
  - Dispatch Centers managed privately

These agencies should be able to determine who within their organizations and outside their organizations should be primary users of the network to avoid bandwidth saturation, while recognizing that the network needs users for sustainment. Entities such as public health and utility companies would be considered as either primary or support once evaluated by "primary mission" agencies. Leaving the definition broad and with the *non-de minimis* consideration on the table leaves it open to interpretation.

If a user is identified as a secondary or lower user during day to operations, access to the network may not be an issue, but during incidents the prioritization protocols might be enacted removing or limiting system access. Consider addressing this at governance.

Policies and governance will need to be put in place to determine how to mitigate conflicts between these agencies.

- If one agency authorizes a NGO to operate on the network in one area of the state, but another agency or agencies do not agree with this decision, which has the final authority?

- This issue has come up in Arizona when allowing NGO's and others to use land mobile radio systems.

HSA Section 2

- Section 6001(27) of the Act states that public safety services are
  - not only services defined in Section 337 of the Communications Act,
  - but also are services provided by "emergency response providers" as that term is defined by HSA Section 2.38
- "Emergency response providers" include:
  - "Federal, State, and local governmental and nongovernmental emergency public safety,
    - fire,
    - law enforcement,
    - emergency response,
    - emergency medical (including hospital emergency facilities),
    - and related personnel, agencies, and authorities."
- Thus, under the Act, a public safety entity is also an entity performing the services performed by "emergency response providers."

- The inclusion in the Act of the HSA definition arguably *expands the list* of potential public safety services beyond that provided in the definition in Section 337 of the Communications Act, in that the HSA definition does not include a "primary mission" limitation and specifically identifies "personnel" in addition to agencies and authorities as emergency response providers.

The HSA definition thus raises the question as to whether a public safety "entity" under the Act can be a person in addition to an organization.40

- While Section 337(f) of the Communications Act indicates that public safety services are services provided only by governmental entities and nongovernmental organizations, the Act's inclusion of services provided by emergency response providers per HSA Section 2 **could reasonably be interpreted** to mean that personnel should be considered public safety entities under the Act when providing services that would otherwise be considered public safety services.

Thus, we **preliminarily conclude** individuals may fall within the definition of "public safety entity" so long as they are serving in their official capacity.41

- Given this **preliminary conclusion**, both volunteer firefighters and the fire departments for which they serve, for example, would qualify as a public safety entity.

FirstNet seeks comment on this **preliminary conclusion**.

Agreed that volunteer firefighters and the fire departments for which they serve would qualify as a public safety entity. Non-governmental entities must be approved as identified above – by a "primary mission" entity.

This definition should include tribal and county, but non-governmental should be removed "Federal, State, and local governmental and nongovernmental."

In reaching this preliminary conclusion, we also note that while the definition of public safety services

- under Section 337(f) of the Communications Act is limited to those services "the sole or principal purpose of which is to protect the safety of life, health, or property,"
- such a limitation is not present in the HSA definition
- or in the definition of public safety entity in the Act itself.
- Thus, when read in totality, the Act does not limit the definition of public safety entity to those entities that solely, or even primarily, provide such services, given the HSA Section 2 component of the definition.

Congress limited the definition of public safety entity in the Communications Act, but, given the incorporation of HSA Section 2 into the Act, we **preliminarily conclude** that Congress imposed no such limitation here.

Limitations should be implemented based on the discretion of the "primary mission" agencies.

As a result, the Act does not appear to require any minimum amount of time that an entity must provide public safety services in order to qualify as a public safety entity under the Act.

We thus **preliminarily conclude** that, so long as an entity performs a non-de minimis amount of public safety services, even if it provides other services, it will qualify as a public safety entity under the Act.42

The term *non-de minimis* opens up the network to a large group (including every animal rescue entity) and seems that it would minimize the ability for a public safety network. This definition should not be included as a "primary mission" public safety service entity. If the entities mission is not public safety, a "primary mission" entity should authorize their use of the network.

Finally, HSA Section 2 indicates that "emergency response providers" include not only:

- "Federal, State, and local governmental and nongovernmental emergency public safety,
  - fire,
  - law enforcement,
  - emergency response,
  - emergency medical (including hospital emergency facilities),
  - . . . personnel, agencies, and authorities
  - " but also "*related* personnel, agencies, and authorities."43

We **preliminarily interpret** the term "related personnel, agencies, and authorities" as personnel, agencies, and authorities providing support to public safety entities in their mission as it would further the public safety goals of the Act to facilitate interoperable communications between public

safety entities and the personnel, agencies, and authorities supporting them.

Therefore, we **preliminarily conclude** that the Act identifies public safety entities under the HSA Section 2 prong as:

1) Any Federal, State, and local governmental and nongovernmental emergency public safety, fire, law enforcement, emergency response, and emergency medical (including hospital emergency facilities) personnel, agencies, and authorities; and

2) Personnel, agencies, and authorities providing support to Federal, State, and local governmental and nongovernmental emergency public safety, fire, law enforcement, emergency response, emergency medical (including hospital emergency facilities) personnel, agencies, and authorities

We seek comments on these preliminary conclusions and on which specific personnel, agencies, and authorities might then qualify as "related" or providing support to the Federal, State, and local governmental and nongovernmental personnel, agencies, and authorities listed in the HSA definition.

Add "Tribal" and "County" to the Federal, State and local governmental definition in #1

There is still no true definition in #2, it should still be up to #1 (removing the reference to non-governmental) to determine who falls into category #2, and there should be no default because it is going to be different within counties, states and multi-state regions. This should be decided by those that fall into category #1 by policy or governance.

Secondary Users

As discussed above, the term "secondary user" is also expressly used in the Act to describe a particular category of FirstNet user.

- Although there is no express definition of secondary user in the Act, Section 6208(a)(2), which addresses covered leasing agreements with "secondary users,"
  - could be interpreted to implicitly define a secondary user as one that "access[es] network capacity on a secondary basis,"

    OR,
  - as Section 6208(a)(2) goes on to provide, "access[es] . . . network capacity on a secondary basis *for non-public safety services*."
- In the context of the Act, the "secondary basis" is presumably "secondary" to use by public safety entities, which would be considered primary users.
- Because FirstNet believes certain public safety users will themselves ultimately be subject to prioritization and/or preemption by other public safety users, FirstNet does not believe the "secondary basis" referenced in the Act can be defined solely as those users subject to such prioritization or preemption.
  - Indeed, certain public safety entities may, at times, be performing preemptable public safety services or preemptable non-public safety services.
- The references to secondary users provided in Sections 6212 and 6302(g) also do not appear to be conclusive as to whether secondary users include users other than those that enter

into covered leasing agreements, which is the only explicit arrangement identified within the Act describing a secondary use of the NPSBN.45

- Section 6208(a)(2) sets out very specific criteria for covered leasing agreements with secondary users.46
- The Act defines a covered leasing agreement as a written agreement resulting from a public-private arrangement to construct, manage, and operate the public safety broadband network between FirstNet and a secondary user to permit: "
    - (1) access to network capacity on a secondary basis for non-public safety services; and
    - (2) the spectrum allocated to such entity to be used for commercial transmissions along the dark fiber of the long-haul network of such entity."

Given the specificity with which Congress set out conditions for non-public safety use of network capacity, **we seek comments** on a preliminary definition of secondary user as a user that accesses network capacity on a secondary basis for its own, or the provision of, non-public safety services *only.*

There should be an additional delineation between a "primary mission" user and a user that supports those that perform that "primary mission" user in time of crisis and/or daily operations as given in the examples above. These users would include NGO's, support agencies such as utility companies, volunteer organizations, public works, etc. This has been explained above under "primary mission."

We also seek comments on whether, notwithstanding the language in Section 6208(a)(1) permitting FirstNet to charge network user fees to secondary users, the definition should be constrained further to limit secondary users to those entering into covered leasing agreements.

Disagree. A Fee may be charged by FirstNet for Network Use [6208 (a)(1)], Lease Fees Related to Network Capacity [6208(a)(2)] and/or Lease Fees Related to Network Equipment and Infrastructure [6208(a)(3). A covered leasing agreement is not required for FirstNet to be able to charge a Network Use Fee to Secondary Users.

A definition limiting secondary users to non-public safety use would be consistent with our preliminary approach, discussed in the previous section, regarding the definition of public safety user, whereby the definition of that term includes any entity that performs public safety services at any time in any non-*de minimis* amount.

- Thus, for example, an electric utility could come within the definition of public safety entity (and could also be a party to a covered leasing agreement), but FirstNet policies and procedures, along with local public safety control of prioritization and preemption, **would likely regulate** its use of the NPSBN.
- We also note that, in addition to the fee for leasing network capacity under a covered leasing agreement which can be charged under Section 6208(a)(2), the Act, under section 6208(a)(1), permits FirstNet to charge secondary users a network user fee for using or

accessing the NPSBN.49

Although in and of itself this **provision** would not necessarily require a change to the definition of secondary user proposed above, **we seek comments** on whether the inclusion of the term in subsection (a)(1) should affect the definition of secondary user.

We disagree with the preliminary approach which includes any entity that performs public safety services at any time in any non-de minimis amount. This all or nothing approach to include part-time public safety providers/supporters as public safety entities disregards the dynamic nature of their services – it may be more realistic to allow "priority appropriate" access only when they are actually engaged in public safety support activities.

Entities Other than Public Safety Entities and Secondary Users Seeking Access to or Use of the NPSBN

As discussed above, we preliminarily conclude that Section 6208(a)(1) permits FirstNet to charge a fee to a category of user beyond public safety entities and secondary users.
We seek comments on which potential users could fall into this category.50

In addition, **we seek comments** on whether users identified in:

- Section 6208(a)(3) (those seeking access to or use of any equipment or infrastructure constructed or otherwise owned by FirstNet) and
- Section 6302(f) (opt-out States seeking use of the core network)
  - fall within this third category of user,
  - constitute their own unique category of users, or
  - fall within the definition of public safety entity or
  - secondary user for purposes of Section 6208(a)(1).51

Public Safety users should not be included in this category of users no matter if they are from an opt-in or opt-out state. They will need to use the system as a public safety user no matter how they pay to use the system. There are agencies across Arizona that work with their counterparts in other states and identifying them under different categories of use could prove to be a challenge.

- Bullhead City works with Laughlin for events/incidents that occur on the Colorado River
- Colorado City, AZ has mutual aid agreements with Hurricane, Utah
- Greenlee County, AZ has radio tower equipment and agreements with New Mexico
- Arizona based Navajo Nation public safety are dispatched from a New Mexico based dispatch center in some cases

Services

As previously discussed, FirstNet is permitted to assess or collect certain fees related to the services that it offers.

Sections 6208 and 6302 specifically permit us to assess and collect:

1) network user fees from users seeking access to or use of the NPSBN;
2) fees associated with covered leasing agreements;
3) fees related to the leasing of our network equipment and infrastructure; and
4) user fees from opt-out States that seek use of elements of our core network.

Section 6212(a), however, specifies that FirstNet "shall not offer, provide, or market commercial telecommunications or information services directly to consumers."

- The Act does not define the word "consumer" or indicate whether the word is limited to individuals or includes organizations and businesses.
- In contrast, the Act does provide a specific, multi-pronged definition of public safety entity, as noted above.

As a result of this contrast, we ***preliminarily* conclude** that regardless how "consumer" is defined, Section 6212 was not intended to limit potential types of public safety entities that may use or access the NPSBN for commercial telecommunications or information services.

Agreed

In addition, under the rule of construction outlined in subsection 6212(b), nothing in Section 6212 is intended to prohibit FirstNet from entering into covered leasing agreements with secondary users, and thus we **preliminarily conclude** that Section 6212 at the very least does not act as a limitation on secondary users in the context of covered leasing agreements.

Agreed

We also **preliminarily conclude** that, given the definition of secondary user discussed above, Section 6212 was not intended to limit the pool of secondary users seeking access to or use of the network on a secondary basis.

Agreed

We seek comments on these preliminary conclusions.

Although the legislation allows a great deal of freedom for FirstNet on who can use the NPSBN either directly to secondary users performing public safety support or indirectly through public private partnerships to consumers, there is a great risk in overcommitting capacity to non-public safety users. It will be difficult to back out of contracts to non-public safety users to deliver on the prime objective of servicing public safety.

FirstNet should ensure that the network is not oversaturated with so many additional users that it is ineffective for public safety and no different than what is commercially available today! There will

be no reason for public safety to utilize the NPSBN if it does not provide functions and features due to oversaturation.

Thus, we **preliminarily conclude** that a "consumer" under the Act is neither a public safety entity nor a secondary user.

Further, given the express authorizations in Section 6302(f) for FirstNet to:

- impose user fees on opt-out States, and
- in Section 6208(a)(3) to impose lease fees on entities that seek access to or use of equipment or infrastructure,

We also **preliminarily conclude** that such States and entities are not intended to qualify as a consumer (which would otherwise disqualify them as a user subject to fee assessments) when seeking access to or use of the core network, and equipment and infrastructure, respectively.

We agree with the statement "we **preliminarily conclude** that a "consumer" under the Act is neither a public safety entity nor a secondary user", however, Opt-out States may have a consumer component which should be allowed to be managed for the benefit of the State in the same manner as it is for FirstNet.

We also seek comments on the kinds of services that this provision is intended to preclude FirstNet from otherwise offering and the scope of the limitations imposed by the provision**.**

- For example, we note that we are expressly authorized to enter into covered leasing agreements that would presumably permit the secondary user involved to provide commercial services, including potentially telecommunications or information services, directly to consumers.

There should be no presumption that the covered leasing agreements allow for commercial services on the network. This spectrum was set aside for public safety. Commercial carriers are already in possession of spectrum for commercial services, including telecommunications and information services directly to consumers. There should not be an overlap of the two uses of this spectrum except in unique circumstances where there is clearly spectrum available to service public safety first and then additional uses. The public safety spectrum must be built to public safety grade, as outlined in the NPSTC document (Defining Public Safety Grade Systems and Facilities[2]) to provide for the expectations of the public safety users or there will be no incentive to move to this spectrum.

How will FirstNet identify a threshold of acceptable capacity for public safety entities while at the same time providing for usage under covered lease agreement? As usage of the network increases, how will FirstNet ensure that there is enough bandwidth for public safety?

[2] http://www.npstc.org/download.jsp?tableId=37&column=217&id=3066&file=Public_Safety_Grade_Report_140522.pdf

Finally, we seek comment on whether this provision implicitly outlines additional services that FirstNet may offer.

FirstNet should not allow users on the network that are not "primary mission" and entities that "primary mission" authorize to be on the network until the network is up and running and has been tested to determine that it is truly providing the bandwidth that public safety requires. By continuing to add users onto the network there is a propensity for the network to become overwhelmed and then public safety will be right back where they started. There will be no incentive for public safety to continue to utilize the network.

There are plenty of examples where agencies felt they had unlimited spectrum/channels but over time realized that their uncontrolled expansion of talk-groups and channel assignments resulted in choking the network and bogging it down completely.

The emphasis placed on opening up the user base to virtually anyone gives the impression that some level of financial analysis has been performed by FirstNet. If this is the case, it would be beneficial for the States to have visibility of the results so they are aware of the hurdles and projected costs and have the financial context for FirstNet priorities and design decisions.

For purposes of interpreting the Act with respect to FirstNet's potential service offerings,55 we note that the Act also provides guidance concerning the services that may be offered by a State that chooses to build its own radio access network.

- Specifically, Section 6302(g)(1) precludes opt-out States from:
  - "provid[ing] commercial service to consumers or
  - offer[ing] wholesale leasing capacity of the network within the State
  - except directly through public-private partnerships for:
    - construction,
    - maintenance,
    - operation, and
    - improvement of the network within the State."56

FirstNet interprets Section 6302(g)(1) to mean that States cannot offer commercial services to consumers and can only lease network capacity through a public-private partnership for the purposes of in-state construction, maintenance, operation and improvement.

We seek comment on this preliminary conclusion. Agreed

B. Requests for Proposals

Requests for Proposals Process

Section 6206(b)(1)(B) requires FirstNet to issue "open, transparent, and competitive" RFPs.57

- The procedural requirements for issuing such RFPs are not defined in the Act itself.

- FirstNet, however, is not expressly excluded from the applicability of the Federal Acquisition Regulation ("FAR"), codified in 48 CFR Parts 1–99. The FAR is the primary regulation for use by all Federal Executive agencies in their acquisition of supplies and services with appropriated funds. Assuming application of the FAR, we preliminarily conclude that in complying with the FAR in such instances, FirstNet will satisfy the requirements of Section 6206(b)(1)(B).
- The FAR provides that "the Federal Acquisition System will . . . promote competition . . . [and] conduct business with integrity, fairness, and openness."[58]

We believe the standards established in the FAR that promote a competitive, fair, and open process for acquiring goods and services fall within the "open, transparent, and competitive" standard of Section 6206(b)(1)(B).

We seek comments on this preliminary conclusion.

We also seek comments more generally on the appropriate interpretation of the "open, transparent, and competitive" standard of Section 6206(b)(1)(B) in this context, including how that standard should be interpreted in light of the Act's use of a "fair, transparent, and objective" standard in Section 6205(b)(1).[59]

Although we agree with the use of the FAR process for RFPs we do not think the FAR process should apply to the RFIs. We agree that responses to the RFI processes will need to be confidential to assure that vendors are not forced to disclose information or options which may benefit their competitors. However, the RFI responses should be made available to all State Points of Contacts (SPOC) through non-disclosure agreements so that they are made aware and can understand the design decisions and directions being made by FirstNet. Sharing the RFI responses would also make the SPOCs more aware of the cost and complexity of building and operating a Network, assisting in the Opt-In/Opt-Out decision. It is also recommended that FirstNet view Opt-out States as the ultimate in Infrastructure sharing partners where FirstNet gets a large chunk of RAN built and maintained by someone else to help build out the overall Network.

Minimum Technical Requirements

Section 6206(b)(1)(B) requires FirstNet to issue RFPs for the purposes of building, operating, and maintaining the network that use, *without materially changing*, the minimum technical requirements developed by the Interoperability Board.60

We interpret this provision to permit FirstNet to make non-material changes or additions/subtractions to the minimal technical requirements developed by the Interoperability Board.61

We seek comments on how to delineate such non-material changes from those that are material.

The minimum technical requirements developed by the Interoperability Board are so fundamental that they are required to be supported no matter what advancements in technology are

accommodated. In other words, the minimum technical requirements should be supplied to prospective bidders on the RFP without change (completely bypassing the concern for defining "material changes"). Furthermore, any accommodation for advancements in technology, must maintain backward compatibility to support the minimum technical requirements. Also, since the minimum technical requirements are based on 3GPP standards and those standards follow a philosophy of backward compatibility this is really a non-issue.

In addition, **we seek comments** on how to reconcile this provision with the requirements in Sections 6202(b) and 6206(c)(4) regarding FirstNet's obligations to accommodate advancements in technology.62

As stated above, the minimum technical requirements developed by the Interoperability Board are so fundamental that they are required to be supported no matter what advancements in technology are accommodated.

Defining the Term "Rural"

- Section 6206(b)(3) directs that FirstNet "shall require deployment phases with substantial *rural* coverage milestones as part of each phase of the construction and deployment of the network . . . [and] utilize cost-effective opportunities to speed deployment in *rural* areas."63
- Section 6206(c)(1)(A)(i) states, in relevant part, that FirstNet "shall develop . . . requests for proposals with appropriate . . . timetables for construction, including by taking into consideration the time needed to build out to *rural* areas."64
- Finally, Section 6206(c)(1)(A)(ii) of the Act explains that FirstNet "shall develop . . . requests for proposals with appropriate . . . coverage areas, including coverage in *rural* and nonurban areas."

Although the Act does not define the term "rural," **we believe we must define this term** to fulfill our duties with regard to the important rural coverage requirements in the Act.66

- We appreciate the position the Commission has taken in this regard, and we are committed to fulfill our duties in a way that will meet these rural coverage requirements. See Implementing Public Safety Broadband Provisions of the Middle Class Tax Relief and Job Creation Act of 2012 et al., PS Docket 12-94 et al., Notice of Proposed Rulemaking, 28 FCC Rcd 2715, 2728-29 ¶ 46 (2013) (Band 14 NPRM) (noting that, "We do not believe the Commission should specify rural milestones as a condition of FirstNet's license at this time. Rather, we recognize that at this early stage, the success of FirstNet requires flexibility with respect to deployment and planning, including deployment in rural areas. Moreover, FirstNet has an independent legal obligation under the Act to develop requests for proposals with appropriate timetables for construction, taking into account the time needed to build out in rural areas, and coverage areas, including coverage in rural and nonurban areas. In addition, in light of the Congressional oversight that will be exercised over FirstNet

and its other transparency, reporting and consultation obligations, we do not believe it is necessary for the Commission to set specific benchmarks in this regard in these rules.").

In order to guarantee rural areas are accommodated, Arizona believes the Commission should set benchmarks that ensure that coverage is provided as stated in other sections of the document. Many areas around Arizona are rural and our stakeholders have expressed concerns that currently they have no radio or broadband coverage leaving their units without any means of communications. FirstNet is an opportunity for them to get the much needed coverage the current carriers are not providing.

Several sources define the term "rural," but we believe, for example, the Rural Electrification Act is a reasonable definition to use under the Act and may further the goals of the Act for several reasons.

- First, **we believe the definition may be sufficiently precise and granular** to guide potential vendors and FirstNet and ensure due consideration of such areas.
- Secondly, the Rural Electrification Act's definition of "rural area" is widely known and familiar to rural telecommunications providers, rural communities, and other stakeholders that will be impacted by FirstNet's mandate to carefully consider rural areas.
- Adoption of this definition would obviate the need for FirstNet to take additional, time-consuming steps to educate itself and the stakeholder community on the parameters of a novel or less familiar definition of "rural" or "rural area."
- Finally, the USDA bases its definition of "rural area" upon the definition in the Rural Electrification Act for purposes of implementing its Rural Broadband Access Loan and Loan Guarantee Program.

This USDA program funds the costs of construction, improvement, and acquisition of facilities and equipment to provide broadband service to eligible rural areas, and thus we believe the definition may be suitable for our related purposes.

We seek comments on using this interpretation.

We do not agree with the definition of "rural area" in this section. FirstNet must include **unincorporated areas** in the definition of "rural area". If unincorporated Census Designated Place (CDPs) areas are not counted as a "rural area" then:

- 78% or 350 out of the 451 population centers in Arizona would NOT be defined as a "rural area" under FirstNet's definition
- 86% or 350 out of the 409 population centers that have less than or equal to 20,000 inhabitants would NOT be defined as a "rural area"

Therefore, Arizona recommends using the following definition:

> *The term "rural area" as a city, town, incorporated area or **unincorporated area** (aka CDP[3]) that has a population of less than **or equal to** 20,000 inhabitants*

- We have also dropped the statement "adjacent and contiguous to an urbanized area that has a population of greater than 50,000 inhabitants." The statement does not add value to the definition and gives way to possible misinterpretation. This is discussed further in the next comment below.

Therefore, we preliminarily conclude that we should define "rural" as having the same meaning as "rural area" in Section 601(b)(3) of the Rural Electrification Act of 1936, as amended ("Rural Electrification Act").69

- Section 601(b)(3) of the Rural Electrification Act provides that "[t]he term 'rural area' means any area other than—(i) an area described in clause (i) or (ii) of Section 1991(a)(13)(A) of this title [section 343(a)(13)(A) of the Consolidated Farm and Rural Development Act]; and (ii) a city, town, or incorporated area that has a population of greater than 20,000 inhabitants."70

- In turn, the relevant portion of Section 343(a)(13)(A) of the Consolidated Farm and Rural Development Act explains that the "terms 'rural' and 'rural area' mean any area other than—(i) a city or town that has a population of greater than 50,000 inhabitants; and (ii) any urbanized area contiguous and adjacent to a city or town described in clause (i)."71

- Taken collectively, the Rural Electrification Act defines the term "rural area" as a city, town, or incorporated area that has a population of less than 20,000 inhabitants and is not adjacent and contiguous to an urbanized area that has a population of greater than 50,000 inhabitants.

We also seek comments on whether the adjacency prong of the definition will pose any difficulties in applying the definition under the Act.

The recommendation is to remove the statement "adjacent and contiguous to an urbanized area that has a population of greater than 50,000 inhabitants." from the definition. If the statement is not removed then the following should be taken into consideration when defining "rural area":

Adjacency, as it relates to the word "adjacent" in the notice excerpt above, will pose difficulties in applying the definition under the Act. The meaning of the word "adjacent" is not defined in the

[3] Added for context – CDP is the abbreviation for Census Designated Place, the statistical counterpart of incorporated places and are delineated to provide data for settled concentrations of population that identifiable by name but are not legally incorporated under the laws of the state in which they are located. CDPs are delineated cooperatively by state and local officials and the Census Bureau, following Census Bureau guidelines.

Consolidated Farm and Rural Development Act which leaves room for interpretation. For example, one interpretation could be that a specified area with a boundary that is only a quarter of a mile from a boundary of a large metropolitan area (larger than 50,000 inhabitants) would be considered "adjacent", but the nearest population center (less than or equal to 20,000 inhabitants) of the specified area could be 50 miles from the boundary. The specified area would be considered "adjacent" but given the distance, should be considered a "rural area". This example is only one of many where different interpretations of rural would leave room for vendors and builders to interpret the meaning of the word "adjacent." Vendors and builders would be able to interpret the term "adjacent" to benefit their profit margin rather than in the best interest of rural public safety.

- Unit of measure
  - Is there an upper distance limit associated with the term "adjacent" or do the boundaries need to touch one another?
  - Can an area's border be one mile or ten miles from an urbanized area (larger than 50,000)? If the boundaries need to touch one another then how does the boundary need to be connected/shared?
    - Can the shared boundary be only one mile or must it be twenty miles?
    - Can only corners from two areas touch one another?
- Coverage requirements of the area that is considered "adjacent"
  - Will the coverage provide service rural public safety needs if considered "adjacent"?
- Terrain and features that separate areas
  - How do large canyons, bodies of water, and/or mountains affect adjacency?
- There needs to be special consideration for tribal and military reservations that do not have political subdivisions
  - Are tribal and military reservations counted as one area i.e. the population of the entire reservation counted as one population for that area so that all communities "adjacent" to the reservation would be defined as "adjacent" and not "rural"?
    - Are tribal and military reservations with political subdivisions treated like any other city, town, incorporated area or unincorporated area as it pertains to adjacency or are they treat like the example in the bullet point above?

Further, FirstNet intends to use the proposed definition of "rural" for purposes of implementing the "substantial rural coverage milestones" as set forth in Section 6206(b)(3).

We seek comments on how to interpret the terms "substantial rural coverage milestones" and how to implement this requirement.

- For example, **we seek comments** regarding whether the terms "substantial rural coverage" should be defined only in terms of geographic coverage, or whether other factors, such as population or the frequency of first responder activity in an area, should be included.

The definition of "substantial rural coverage" in terms of geographic coverage is acceptable BUT should take the following into consideration:

- Critical infrastructure
  - Palo Verde Nuclear Power Plant is located in a "rural area"
- US Interstates, US Routes, State Routes and major roads
  - Large number of "rural area" populations live next to or off of US Interstates, US Routes, State Routes or other major roads
- Areas of low population with high visitation
  - Grand Canyon Village has a full-time population of 13 inhabitants but has close to five million visitors a year
  - Grand Canyon West has a full-time population of 2 inhabitants but has over 900,000 visitors a year
  - Snowbirds
    - Quartzsite, AZ has a population of 3600 full-time inhabitants but during the fall and winter months, the population grows to hundreds of thousands of inhabitants
  - Large events in "rural" and "nonurban" areas draw thousands of people
    - The Aloha River Regatta in Bullhead City, AZ (population 39,000) has over 28,000 participants for a float party down the Colorado River
    - Navajo Nation Annual Pow Wow in Window Rock, AZ (population 2700) averages 15,000 attendees a day over three days
- Areas of low population but high public safety presence
  - The Southwest border region has unique challenges and coverage requirements that need to be addressed. There are high traffic border crossing in areas of zero population but public safety operates in those areas on a daily basis.

In addition**, we seek comments** on whether we should define a separate term for a frontier or wilderness area that would bound the term rural in connection with provisions of the Act.

- **For example, we seek comment** on whether a population density below a five person per square mile or lower standard should be considered frontier, rather than rural, for purposes of the Act.

The use of a population density less than five people per square mile as defined in the notice excerpt above as the definition for frontier is acceptable. However, the final coverage determination for any area, including frontier, should be negotiated as part of the State consultation process. Excluding Grand Canyon Village, which has a full-time population of 13 inhabitants but has close to five million visitors a year, would not necessarily be an option, although it would be classified as frontier.

Finally, Section 6206(c)(1)(A)(ii), as discussed above, explains that FirstNet "shall develop . . . requests for proposals with appropriate . . . coverage areas, including coverage in rural and *nonurban areas*."72

We seek comments on the distinction between the terms rural and nonurban areas and how to define the term "nonurban" under the Act.

The overarching goal should be to define areas (rural, nonurban, etc.) using a combination of population and level of public safety activity. For example, the area of Town-A with a population of 136 inhabitants may average 500 public safety related incidents per month. Town-B with a population of 5000 inhabitants may average only 50 incidents a month. Both towns should be defined using terms that would provide services to meet the needs of public safety taking into consideration the points mentioned in this section.

A singular definition of "rural" based solely on population will not adequately determine coverage requirements and/or build out milestones due to the many factors which mitigate coverage requirements. FirstNet should establish build out milestones based on the unique coverage requirements of each State through the state consultation process.

Existing Infrastructure

The Act encourages FirstNet to consider leveraging existing infrastructure when "economically desirable."

- Section 6206(b)(1)(C) of the Act requires FirstNet in issuing RFPs to "encourag[e] that such requests leverage, to the maximum extent economically desirable, existing commercial wireless infrastructure to speed deployment of the network."
- Section 6206(b)(3), which addresses rural coverage and issuing RFPs, directs that "[t]o the maximum extent economically desirable, such proposals shall include partnerships with existing commercial mobile providers to utilize cost-effective opportunities to speed deployments in rural areas."
- Section 6206(c)(3) additionally requires that "[i]n carrying out the requirements under subsection (b), the First Responder Network Authority shall enter into agreements to utilize, to the maximum extent economically desirable, existing (A) commercial or other communications infrastructure; and (B) Federal, State, tribal, or local infrastructure."
    - Section 6206(b)(1)(C) appears to relate to issuing RFPs referenced in 6206(b)(1)(B) and requires FirstNet to "*encourag*[*e*] that such requests leverage, to the maximum extent economically desirable," existing infrastructure.77
    - The use of the term "encourage," however, implies that FirstNet may not be in direct control of these requests
    - Alternatively, this provision could be intended to require FirstNet to encourage the *proposals* provided in response to FirstNet's requests to leverage existing infrastructure.

Because the "requests" referenced in subsection (b)(1)(C) appear to be those required of FirstNet in subsection (b)(1)(B), we **preliminarily conclude** that subsection (b)(1)(C) is intended to require

FirstNet to encourage, through its requests, that responsive *proposals* leverage existing infrastructure in accordance with the provision.

We seek comments on this preliminary conclusion

Agreed

Section 6206(b)(3) states that with regard to FirstNet's issuing requests for proposals, "such *proposals* shall include partnerships with existing commercial mobile providers" to the maximum extent economically desirable to utilize cost-effective opportunities to speed deployment in rural areas.78

- Unlike subsection (b)(1)(C), this provision addresses "proposals," but does so without directly requiring FirstNet to act in some way.

We nevertheless **preliminarily** interpret this provision as requiring FirstNet to include in its requests that such proposals leverage such partnerships where economically desirable.

We seek comments on this preliminary conclusion, and also on whether FirstNet or the supplier responding to a FirstNet request is intended to make the actual economic desirability assessment under the **provision**.

FirstNet should determine an acceptable to unacceptable range for the *economic desirability assessment*.

The supplier should determine the economic desirability assessment based on the FirstNet provided range to identify that it is providing a proposal that meets the requirements of the law in both the "economic desirability" and explain how it will "speed the deployment of the network" in (b)(1)(C), *"to the **maximum extent economically desirable**, existing commercial wireless infrastructure to speed deployment of the network"*

We **preliminarily** conclude that FirstNet is to make that determination, but could do so through, for example, requiring and evaluating competitive proposals from carriers with facilities in rural areas.

We also seek comment on whether FirstNet or a supplier responding to a FirstNet request or both are required to enter into the referenced partnerships, and the nature of such partnerships.

The clause "to the maximum extent economically desirable" would necessitate competitive proposals where possible.

Section 6206(c)(3) states that FirstNet, in carrying out the requirements of subsection (b), which include, but are not limited to, issuing RFPs, "shall *enter into agreements* to utilize, to the maximum extent economically desirable" certain existing infrastructure.79

- Thus, unlike the provisions discussed above, this provision expressly references neither requests nor proposals.
- We note, however, that, as discussed above in this *Notice*, FirstNet is not expressly excluded from the applicability of the FAR, and thus when FirstNet itself enters into agreements to

utilize the infrastructure described in Section 6206(c)(3), such agreements would likely be subject to the competitive processes of the FAR.

FirstNet could also enter into an agreement, via such competitive process, with a private sector entity, which in turn contracts for use of State, tribal, or local infrastructure (whether or not through a competitive process).

We seek comments on this interpretation.

Arizona concurs with *entering into agreements* with the state, tribal or local governmental agencies to utilize available infrastructure, however, there should not be an RFP process with these entities, but rather negotiations with the infrastructure owning entity to include how that could potentially affect their user fees and IGAs to establish the agreed upon use of and access to the infrastructure. For allowing the private sector entity to utilize their infrastructure and/or if the State, tribal, or local is responsible for upkeep and maintenance they should receive compensation and/or reduced fees for sharing

Each of these sections, as stated above, requires FirstNet to leverage existing infrastructure to the extent it is "economically desirable."

We seek comments on an appropriate definition of and approach to assessing what is "economically desirable," and the factors that should be considered, and by whom, in each of the sections imposing the standard.

- For example, in weighing economic desirability with respect to the speed of rural deployment, we seek comments on how to balance costs with speed.

There needs to be another deciding factor when assessing the term "economically desirable". The requirements of public safety should be considered when trying to balance cost with speed. If the requirements are not met due to the "speed" and/or "cost" of the build-out then public safety agencies will not subscribe. FirstNet should make every effort to prioritize the requirements of public safety, specifically coverage in "rural areas", against "cost with speed".

FirstNet also needs to recognize that "rural areas" traditionally have fewer infrastructures to share and less monies to spend than larger areas. It is important that the cost model for "rural areas" not increase due to the increased cost to build-out.

In addition**, we seek comments** on the distinctions between the various types of existing infrastructure referenced in the three sections:

- commercial wireless infrastructure;
- commercial mobile providers;
- commercial infrastructure;
- other communications infrastructure; and
- Federal, State, tribal, or local infrastructure.

The distinction between various types of infrastructure should be identified by who owns the infrastructure or service and the function they provide. For example, if a commercial wireless company e.g. Verizon Wireless owns the fiber and antennas that connects to a cellular tower owned by Patriot Tower then both would be classified as commercial wireless infrastructure. Secondly, if Arizona Public Service (APS) owns electrical power towers and right-of-way then they would be classified as commercial infrastructure.

For example, **we seek comments** on whether the term "commercial mobile provider" should exclude resellers or other non-facilities-based providers.

Agreed with the example immediately above, with the exception - this term should exclude resellers or other non-facilities-based providers

Finally**, we seek comments** on how to factor in the transaction costs of collecting, analyzing, establishing terms and conditions for, and potentially leveraging the millions of "pieces" of infrastructure covered by the literal terms of the Act into our assessment of "economic desirability."

- For example, **we seek comments** on the extent to which such assessments of economic desirability are simply embedded in a competitive RFP process.

No response

Fees

Section 6208(a) authorizes FirstNet to assess and collect three sets of fees notwithstanding Section 337 of the Communications Act.80

We first seek comments on whether the list of fees in Section 6208(a), which we interpret below to also include the fee for core network use from Section 6302(f), are exclusive and thus the only fees FirstNet may assess and collect, at least under the authority of the Act.81

Agreed

User Fees

Sections 6208(a)(1) and 6302(f) provide the authority and describe the circumstances under which FirstNet may assess and collect network user fees for access to and use of the NPSBN.82

- FirstNet interprets the network user fees described in Section 6302(f) as being a specifically authorized subset of fees under Section 6208(a)(1) for "use of" the core network.
- We believe user fees authorized by Section 6208(a)(1) are distinct from covered leasing fees authorized by 6208(a)(2) and lease fees related to network equipment and infrastructure authorized by 6208(a)(3), which are discussed separately in the sections below.

Thus, FirstNet **initially concludes** that each of the fees authorized by the Act may be assessed

individually, and cumulatively as applicable, and we seek comments on this preliminary conclusion, and on whether FirstNet has authority to impose fees under other authorities.

Agreed

Network User Fees

As previously discussed, Section 6208(a)(1) of the Act authorizes FirstNet to assess and collect a network user or subscription fee from each entity, including public safety entities and secondary users, that seeks access to or use of the NPSBN.83

- Thus, the Act contemplates that a network user fee could be collected from, at minimum, a public safety user or a secondary user.
- As previously discussed in this *Notice*, however, use of the term "including" rather than "consisting" when describing the scope of entities that may be charged a network user fee indicates that this group is not limited to only public safety entities or secondary users, but could potentially include other entities.

Thus, we **preliminarily conclude** that FirstNet may charge a user fee to any eligible customer, including secondary users who may have already entered into a covered leasing agreement with FirstNet, and seek comments on this preliminary interpretation.

Agreed

In addition, **we seek comments** on the difference between the terms "access to" and "use of" the NPSBN in this section, including for example, whether the term "access to" would include access to databases without use of other network infrastructure.

Agreed

State Core Network User Fees

Section 6302(f) requires that a State choosing to build its own radio access network rather than participating in the FirstNet proposed network for that State, must pay any user fees associated with state use of elements of the core network.84

The Act states that this fee applies specifically to the use of the core network by an opt-out State, and therefore we **preliminarily conc**lude that it is separate and distinct from any other fees authorized by the Act.

We seek comments on this preliminary conclusion.

Agreed

Lease Fees Related to Network Capacity and Covered Leasing Agreements

In addition to user fees, FirstNet is able to charge fees for secondary use of network capacity.

- Section 6208(a)(2) provides for "lease fees" resulting from a public-private arrangement between FirstNet and a secondary user, which permits access to network capacity on a secondary basis for non-public safety services, including through "spectrum allocated to such" secondary user.85
- This public-private arrangement is termed a covered leasing agreement ("CLA") under the Act.

With regard to the specific definition of a CLA, we first note that the Act contemplates a "public-private arrangement," and thus **preliminarily conclude** that the arrangement must be between FirstNet and a "private" entity, with that entity being the "secondary user" provided in the preamble to Section 6208(a)(2)(B).86

We believe that such a user could be interpreted as either a Secondary User or an Other User.

The "arrangement" described in Section 6208(a)(2)(B) is one "to construct, manage, and operate the [NSPBN]."87

- The provision does not specify whether either party must perform all or a part of the constructing, managing, and operating under the arrangement.

We thus **preliminarily conclude** that the arrangement does not require a secondary user to "construct, manage, and operate" the entire FirstNet network, either from a coverage perspective or exclusively within a specific location.

Thus, for example,

- One secondary user could construct, manage, and operate the FirstNet network in several states, and another secondary user could do so in several other states.
- Similarly, a secondary user could construct, manage, and operate a portion of the network in Akron, Ohio and at the same time FirstNet or other secondary users could be constructing, managing, and operating elements of the network in Akron in conjunction with the first secondary user.

And thus, we **preliminarily conclude** that it is theoretically possible for multiple CLA lessees to coexist and utilize FirstNet spectrum in a particular geographic area.

Therefore, FirstNet's **preliminary conclusion** is that there is no minimum amount, other than a *de minimis* amount, of constructing, managing, and operating that a CLA lessee must do in order to satisfy the definition.

- We believe this interpretation provides us with the ability to leverage our excess network capacity to the maximum extent the market will bear, ultimately benefitting public safety by helping us achieve additional efficiencies of scale and increasing revenues for further investment in the network.

- Any alternative interpretation requiring more than this would artificially constrain the potential pool of purchasers of excess capacity, such as to those who could partner with FirstNet only on a national basis, potentially constraining additional funding.

We also **preliminarily conclude** that if the highest value is created by leveraging a partner on a national basis, this portion of the definition of CLA would not constrain FirstNet in entering into such an arrangement.

We seek comments on these preliminary conclusions, including on whether a secondary user is required to even perform a *de minimis* amount of constructing, managing, and operating, as discussed above, beyond paying lease fees.

Agreed

For the same reasons as stated above, we **preliminarily conclude** that a secondary user is not required to perform all three functions of constructing, managing, and operating a portion of the network, so long as one of the three is performed as part of the CLA.

- For example, a secondary user could agree to construct a radio access network in a particular location, and FirstNet could manage and operate that radio access network, assuming the other elements of the definition were satisfied.

We **preliminarily conclude** that use of the word "permit" in the definition of CLA indicates that an absolute requirement, such as through use of the term "requires," is not contemplated.

Thus, we **preliminarily conclude** that the technical architecture of a CLA would, at a minimum, have to *allow* use as described in Section 6208(a)(2)(B)(i) and (B)(ii).

- For example, with respect to (B)(ii) and as discussed more fully below, local traffic of a secondary user not requiring long-haul transmission could be communicated locally without satisfying (B)(ii), and without violating the definition of a CLA overall.

We also **preliminarily conclude** that the reference to "network capacity" in item (B)(i) of the definition of CLA is a generic statement referring to the combination of spectrum and network elements, as defined by the Act and discussed in this *Notice*, which could include the core network as well as the radio access network of either FirstNet alone or that of the secondary user under a CLA whereby the core and radio access network are used for serving both FirstNet public safety entities and the secondary user's commercial customers.

Section 6208(a)(2)(B)(i) permits private entities that enter into CLAs with FirstNet access to such network capacity "on a secondary basis for non-public safety services."**88 FirstNet interprets the term** "secondary basis" to mean that the network capacity will be available to the secondary user unless it is needed for public safety services in accordance with the discussion of "secondary users" in this *Notice*.

FirstNet seeks comments on this preliminary conclusion.

Agreed

With respect to item (B)(ii) of the definition, we **preliminarily conclude** that all or a portion of the FirstNet Band 14 spectrum can be allocated for secondary use by a CLA lessee because the phrase, "the spectrum allocated to such entity" does not appear to require any minimum amount of such spectrum to be allocated.

- This interpretation would provide FirstNet with maximum flexibility in marketing excess network capacity.

Further, according to item (B)(ii), the CLA lessee can use that spectrum to originate or terminate to or from a "long-haul" network utilized by the CLA lessee.

Because the term "long-haul" network has less meaning in the context of information services, rather than regulated voice services, we **preliminarily conclude** that, without limitation, a "long-haul" network could be one that traverses traditional Local Access Transport Area boundaries, but other interpretations and more expansive boundaries are possible.

We seek comments on this preliminary conclusion.

Agreed

We also **preliminarily conclude** that the reference to "dark fiber" cannot literally be interpreted as such because, once transporting traffic, the fiber would no longer be "dark."

Thus, FirstNet **preliminarily concludes** that the reference should be interpreted to allow the covered lessee to transport such traffic on otherwise previously dark fiber facilities.

We seek comments on this preliminary conclusion, and on any alternative interpretations requiring the use of dark fiber of a long network, or previously unused capacity on lit fiber of a long haul network.

Agreed

Given the complexity of this provision, **we seek comments** on both our specific **preliminary conclusions** above as well as the **provision** generally, including any alternative interpretations, the potential policy goals underlying the provision's inclusion in the Act, the ramifications of alternative interpretations to the value of CLAs, and any technical impediments to implementing the above preliminary or alternative interpretations.

Network Equipment and Infrastructure Fee

Section 6208(a)(3) provides for lease fees related to network equipment and infrastructure.89

As contrasted with lease fees related to network capacity in subsection (a)(2), or user fees in subsection (a)(1), **FirstNet interprets this provision** as being limited to the imposition of a fee for

the use of static or isolated equipment or infrastructure, such as antennas or towers, rather than for use of FirstNet spectrum or access to network capacity.

We seek comments on where use under subsection (a)(1) or (a)(2) would end, and use under (a)(3) would begin for equipment such as antennas.

Agreed

Section 6208(a)(3) defines the scope of eligible equipment or infrastructure for which FirstNet may charge a fee to include "*any* equipment or infrastructure, including antennas or towers, constructed or otherwise owned by [FirstNet] resulting from a public-private partnership arrangement to construct, manage, and operate the [NPSBN]."90

We **interpret** "constructed or otherwise owned by [FirstNet]" as requiring that FirstNet ordered or required the construction of such equipment or infrastructure, paid for such construction, or simply owns such equipment or infrastructure.

We seek comments on the above preliminary conclusions and whether this provision would also include equipment or infrastructure that FirstNet does not own but, through a contract, such as one resulting from a public-private partnership arrangement to construct, manage, and operate the NPSBN, has rights to sublease access to, or use of, such equipment or infrastructure.

Agreed